## SEQUENCE LISTING

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<110> Urry, Dan
<120> Acoustic Absorption Polymers and Their Methods of Use
<130> BERL025/01US
<160> 47
<170> PatentIn version 3.0
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<213> Synthetic
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<210> 2
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Gly Gly Val Pro
<210> 4
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Gly Gly Phe Pro
<210> 5
<211> 4
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Gly Gly Ala Pro
<210> 6
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<222> (2)..(4)
<223> the residue at position 2 can be V, E, F, Y or K; the residue at
       position 4 can be V, E, F or
<400> 6
Gly Xaa Gly Xaa Pro
<210> 7
<211> 6
<212> PRT
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<400> 7
Ala Pro Gly Val Gly Val
1
                5
<210> 8
<211> 35
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<400> 8
Gly Val Gly Val Pro Gly Val Gly Phe Pro Gly Glu Gly Phe Pro Gly
                                     10
Val Gly Val Pro Gly Val Gly Phe Pro Gly Phe Gly Phe Pro Gly Val
                                                     30
                                 25
Gly Val Pro
        35
<210>
      9
<211>
      35
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<400> 9
Gly Val Gly Val Pro Gly Val Gly Phe Pro Gly Glu Gly Phe Pro Gly
                                     10
                5
1
Val Gly Val Pro Gly Val Gly Phe Pro Gly Val Gly Phe Pro Gly Val
                                                      30
            20
                                 25
Gly Val Pro
        35
<210>
       10
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       35
<212> PRT
<213>
       Synthetic
<400>
       10
Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Glu Gly Val Pro Gly
                                                          15
                                     10
1
Val Gly Val Pro Gly Val Gly Phe Pro Gly Phe Gly Phe Pro Gly Val
                                                      30
            20
                                 25
Gly Val Pro
        35
<210>
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<211>
       35
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       PRT
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<213> Synthetic
<400> 11
Gly Val Gly Val Pro Gly Val Gly Phe Pro Gly Glu Gly Phe Pro Gly
Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val
                               25
Gly Val Pro
        35
<210> 12
<211> 35
<212> PRT
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Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Glu Gly Val Pro Gly
Val Gly Val Pro Gly Val Gly Val Pro Gly Val Pro Gly Val
                                25
Gly Val Pro
        35
<210> 13
<211> 65
<212> PRT
<213> Synthetic
<400> 13
Gly Val Gly Ile Pro Gly Phe Gly Glu Pro Gly Glu Gly Phe Pro Gly
Val Gly Val Pro Gly Phe Gly Phe Pro Gly Phe Gly Ile Pro Gly Val
Gly Ile Pro Gly Phe Gly Glu Pro Gly Glu Gly Phe Pro Gly Val Gly
Val Pro Gly Phe Gly Phe Pro Gly Phe Gly Ile Pro Gly Val Gly Val
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                        55
                                            60
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Pro
65
<210>
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       35
<212>
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      Synthetic
<213>
<400> 14
Gly Val Gly Val Pro Gly Val Gly Phe Pro Gly Lys Gly Phe Pro Gly
                                     10
Val Gly Val Pro Gly Val Gly Phe Pro Gly Phe Gly Phe Pro Gly Val
                                                      30
                                 25
            20
Gly Val Pro
        35
<210>
       15
<211>
       35
<212>
       PRT
      Synthetic
<213>
<400>
      15
Gly Val Gly Val Pro Gly Val Gly Phe Pro Gly Lys Gly Phe Pro Gly
                                     10
                                                          15
1
Val Gly Val Pro Gly Val Gly Phe Pro Gly Val Gly Phe Pro Gly Val
                                                      30
            20
                                 25
Gly Val Pro
        35
<210>
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<212>
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       Synthetic
<400> 16
Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Lys Gly Val Pro Gly
                                      10
                                                          15
                 5
1
Val Gly Val Pro Gly Val Gly Phe Pro Gly Phe Gly Phe Pro Gly Val
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25 30 20 Gly Val Pro 35 <210> 17 <211> 35 <212> PRT <213> Synthetic <400> 17 Gly Val Gly Val Pro Gly Val Gly Phe Pro Gly Lys Gly Phe Pro Gly Val Gly Val Pro 35 <210> 18 <211> 35 <212> PRT <213> Synthetic <400> 18 Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Lys Gly Val Pro Gly Val 25 Gly Val Pro 35 <210> 19 <211> 35 <212> PRT <213> Synthetic <400> 19 Gly Val Gly Val Pro Gly Val Gly Phe Pro Gly Glu Gly Phe Pro Gly 15 10 5 1

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Val Gly Val Pro Gly Val Gly Phe Pro Gly Lys Gly Val Pro Gly Val
                                25
            20
Gly Val Pro
        35
<210> 20
<211> 35
<212> PRT
<213> Synthetic
<400> 20
Gly Val Gly Val Pro Gly Val Gly Phe Pro Gly Glu Gly Phe Pro Gly
                                    10
                                                        15
                5
1
Val Gly Val Pro Gly Val Gly Val Pro Gly Lys Gly Val Pro Gly Val
                                                    30
                                25
            20
Gly Val Pro
        35
<210> 21
<211> 5
<212> PRT
<213> Synthetic
<220>
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<222> (4)..(4)
<223> the residue at position 4 is an amino acid residue modified to h
       ve an electroresponsive side chai
<400> 21
Val Pro Gly Xaa Gly
1
<210> 22
<211> 5
<212> PRT
<213> Synthetic
<400> 22
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Ile Pro Gly Val Gly
                5
<210> 23
<211> 11
<212> PRT
<213> Synthetic
<220>
<221> VARIANT
<222> (6)..(6)
<223> the residue at position 6 is S, T or Y
<400> 23
Gly Val Gly Val Pro Xaa Gly Val Gly Val Pro
                                    10
                5
<210> 24
<211>
      5
<212> PRT
<213> Synthetic
<220>
<221> VARIANT
<222> (2)..(4)
<223> the residue at position 2 can be can be V, E, F, Y, K, S or T; t
       e residue at position 4 can be V, E, F, I, S, T or Y; at least o
n
       e of the residues at positions 2 or 4 is S, T or
<400> 24
Gly Xaa Gly Xaa Pro
<210> 25
<211>
      30
<212> PRT
<213> Synthetic
<400> 25
Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Lys Gly Val Pro Gly
```

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10
                                                       15
               5
1
Val Gly Val Pro Gly Val Gly Phe Pro Gly Phe Gly Phe Pro
                               25
<210> 26
<211> 66
<212> DNA
<213> Synthetic
<400> 26
gaggatccag gcgttggggt accgggtgtt ggcgatccgg gtaaaggtgt cccgggggttg
                                                                     6
gtgtgc
6
<210> 27
<211> 66
<212> DNA
<213> Synthetic
<400> 27
ctggatccaa cgcctgggaa tccgaaaccc ggaaagccta cacccggcac accaacgccc
                                                                      6
gggaca
6
<210> 28
<211> 10
<212> PRT
<213> Synthetic
<400> 28
Gly Val Gly Val Pro Gly Tyr Gly Val Pro
                                    10
                5
1
<210> 29
<211> 45
<212> PRT
<213> Synthetic
<400> 29
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Gly Val Gly Ile Pro Gly Glu Gly Ile Pro Gly Val Gly Ile Pro Gly
                                    10
Val Gly Ile Pro Gly Glu Gly Ile Pro Gly Val Gly Ile Pro Gly Val
                                25
Gly Ile Pro Gly Glu Gly Ile Pro Gly Val Gly Ile Pro
                            40
<210> 30
<211> 30
<212> PRT
<213> Synthetic
<400> 30
Gly Val Gly Ile Pro Gly Val Gly Ile Pro Gly Glu Gly Ile Pro Gly
Val Gly Ile Pro Gly Val Gly Ile Pro Gly Val Gly Ile Pro
                                25
            20
<210> 31
<211> 30
<212> PRT
<213> Synthetic
<400> 31
Gly Glu Gly Ile Pro Gly Val Gly Ile Pro Gly Glu Gly Ile Pro Gly
                                                         15
                                    10
                5
Val Gly Ile Pro Gly Val Gly Ile Pro Gly Val Gly Ile Pro
                                25
            20
<210> 32
<211> 45
<212> PRT
<213> Synthetic
<400> 32
Gly Val Gly Ile Pro Gly Lys Gly Ile Pro Gly Val Gly Ile Pro Gly
                                     10
                                                         15
                5
1
Val Gly Ile Pro Gly Lys Gly Ile Pro Gly Val Gly Ile Pro Gly Val
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30 25 20 Gly Ile Pro Gly Lys Gly Ile Pro Gly Val Gly Ile Pro 45 40 35 <210> 33 <211> 30 <212> PRT <213> Synthetic <400> 33 Gly Val Gly Ile Pro Gly Val Gly Ile Pro Gly Lys Gly Ile Pro Gly Val Gly Ile Pro Gly Val Gly Ile Pro Gly Val Gly Ile Pro <210> 34 <211> 30 <212> PRT <213> Synthetic <400> 34 Gly Lys Gly Ile Pro Gly Val Gly Ile Pro Gly Lys Gly Ile Pro Gly 10 Val Gly Ile Pro Gly Val Gly Ile Pro Gly Val Gly Ile Pro 25 <210> 35 <211> 110 <212> PRT <213> Synthetic <400> 35 Gly Val Gly Ile Pro Gly Val Gly Ile Pro Gly Val Gly Ile Pro Gly 10 5 Val Gly Ile Pro Gly Val Gly Ile Pro Gly Val Gly Ile Pro Gly Val 25 20

45

Gly Ile Pro Gly Val Gly Ile Pro Gly Val Gly Ile Pro Gly Val Gly

40

35

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Ile Pro Gly Val Gly Ile Pro Gly Val Gly Ile Pro Gly Val Gly Ile 50 55 60
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Pro Gly Val Gly Ile Pro Gly Val Gly Ile Pro Gly Val Gly Ile Pro 65 70 75 80

Gly Val Gly Ile Pro Gly Val Gly Ile Pro Gly Val Gly Ile Pro Gly 85 90 95

Val Gly Ile Pro Gly Val Gly Ile Pro Gly Tyr Gly Ile Pro 100 105 110

<210> 36

<211> 110

<212> PRT

<213> Synthetic

<220>

<221> VARIANT

<222> (107)..(107)

<223> The residue at position 107 is associated with an SO4 ion

<400> 36

Gly Val Gly Ile Pro Gly Val Gly Ile Pro Gly Val Gly Ile Pro Gly
1 10 15

Val Gly Ile Pro Gly Val Gly Ile Pro Gly Val Gly Ile Pro Gly Val 20 25 30

Gly Ile Pro Gly Val Gly Ile Pro Gly Val Gly Ile Pro Gly Val Gly 35 40 45

Ile Pro Gly Val Gly Ile Pro Gly Val Gly Ile Pro Gly Val Gly Ile
50 60

Pro Gly Val Gly Ile Pro Gly Val Gly Ile Pro Gly Val Gly Ile Pro 65 70 75 80

Gly Val Gly Ile Pro Gly Val Gly Ile Pro Gly Val Gly Ile Pro Gly 85 90 95

Val Gly Ile Pro Gly Val Gly Ile Pro Gly Tyr Gly Ile Pro 100 105 110

<210> 37

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<211> 60
<212> PRT
<213> Synthetic
<400> 37
Gly Val Gly Ile Pro Gly Val Gly Ile Pro Gly Val Gly Ile Pro Gly
                                    10
Val Gly Ile Pro Gly Val Gly Ile Pro Gly Val Gly Ile Pro Gly Val
                                25
            20
Gly Ile Pro Gly Val Gly Ile Pro Gly Val Gly Ile Pro Gly Val Gly
Ile Pro Gly Val Gly Ile Pro Gly Tyr Gly Ile Pro
                        55
<210> 38
<211> 60
<212> PRT
<213> Synthetic
<220>
<221> VARIANT
<222> (58)..(58)
<223> The residue at position 58 is associated with an SO4 ion
<400> 38
Gly Val Gly Ile Pro Gly Val Gly Ile Pro Gly Val Gly Ile Pro Gly
Val Gly Ile Pro Gly Val Gly Ile Pro Gly Val Gly Ile Pro Gly Val
                                                     30
                                25
Gly Ile Pro Gly Val Gly Ile Pro Gly Val Gly Ile Pro Gly Val Gly
                                                 45
                            40
        35
Ile Pro Gly Val Gly Ile Pro Gly Tyr Gly Ile Pro
                                             60
                         55
    50
```

<210> 39 <211> 45

<212> PRT

<213> Synthetic

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<400> 39
Gly Val Gly Ile Pro Gly Val Gly Ile Pro Gly Val Gly Ile Pro Gly
                                    10
Val Gly Ile Pro Gly Val Gly Ile Pro Gly Val Gly Ile Pro Gly Val
                                25
            20
Gly Ile Pro Gly Val Gly Ile Pro Gly Tyr Gly Ile Pro
                            40
        35
<210>
      40
<211>
      45
<212> PRT
<213> Synthetic
<400> 40
Gly Val Gly Ile Pro Gly Val Gly Ile Pro Gly Val Gly Ile Pro Gly
                5
1
Val Gly Ile Pro Gly Val Gly Ile Pro Gly Val Gly Ile Pro Gly Val
            20
                                 25
Gly Ile Pro Gly Val Gly Ile Pro Gly Tyr Gly Ile Pro
                             40
        35
<210> 41
<211>
       30
<212> PRT
<213> Synthetic
<400> 41
Gly Val Gly Ile Pro Gly Val Gly Ile Pro Gly Val Gly Ile Pro Gly
                                                         15
                                     10
1
Val Gly Ile Pro Gly Val Gly Ile Pro Gly Tyr Gly Ile Pro
                                                     30
             20
                                 25
<210>
       42
<211>
       30
<212> PRT
<213> Synthetic
<220>
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<221> VARIANT
<222> (28)..(28)
<223> The residue at position 28 is associated with an SO4 ion
<400> 42
Gly Val Gly Ile Pro Gly Val Gly Ile Pro Gly Val Gly Ile Pro Gly
Val Gly Ile Pro Gly Val Gly Ile Pro Gly Tyr Gly Ile Pro
<210> 43
<211> 15
<212> PRT
<213> Synthetic
<400> 43
Gly Val Gly Ile Pro Gly Val Gly Ile Pro Gly Tyr Gly Ile Pro
                                    10
<210> 44
<211> 15
<212> PRT
<213> Synthetic
<220>
<221> VARIANT
<222> (13)..(13)
<223> The residue at position 13 is associated with an SO4 ion
<400> 44
Gly Val Gly Ile Pro Gly Val Gly Ile Pro Gly Tyr Gly Ile Pro
                                    10
<210> 45
<211> 10
<212> PRT
<213> Synthetic
<400> 45
 Ile Pro Gly Val Gly Ile Pro Gly Tyr Gly
```

```
5
                                   10
1
<210> 46
<211> 10
<212> PRT
<213> Synthetic
<220>
<221> VARIANT
<222> (9)..(9)
<223> The residue at position 9 is associated with an SO4 ion
<400> 46
Ile Pro Gly Val Gly Ile Pro Gly Tyr Gly
<210> 47
<211> 10
<212> PRT
<213> Synthetic
<220>
<221> VARIANT
<222> (9)..(9)
      The residue at position 9 is associated with an MgSO4 ion
<223>
<400> 47
Ile Pro Gly Val Gly Ile Pro Gly Tyr Gly
                                    10
```